

Name: AMS Key TP: _____

HW#47H: CPCTC

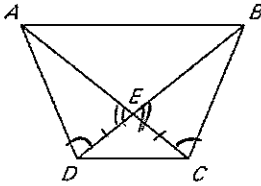
Honors Geometry

Due Date: Thursday, Dec. 13th, 2012

Failure to show all work and write in complete sentences will result in LaSalle!

1) **GIVEN:** $\overline{DE} \cong \overline{CE}$, $\angle ADE \cong \angle BCE$

PROVE: $\angle DAE \cong \angle CBE$



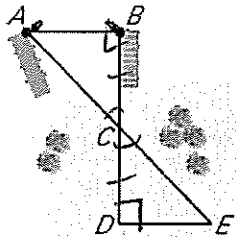
- $\overline{DE} \cong \overline{CE}$, $\angle ADE \cong \angle BCE$ (given)
- $\angle AED \cong \angle BEC$ (vertical)
- $\triangle AED \cong \triangle BEC$ (ASA)
- $\angle DAE \cong \angle CBE$ (CPCTC)

2) **Given:** $AB \perp BD$

$DB \perp DE$

C is the midpoint of BD

Prove: $BA \cong DE$



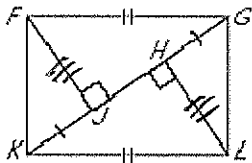
- $\triangle ABC \cong \triangle EDC$ (ASA)
- $\overline{BA} \cong \overline{DE}$ (CPCTC)

- $AB \perp BD$ (given)
- $DB \perp DE$
- C is mpt
- $\angle ACB \cong \angle ECD$ (vertical)
- $BC = DC$ (mpt)
- $\angle ABD, \angle EDC$ are rt \angle 's (defⁿ)
- $\angle ABD = 90, \angle EDC = 90$ (defⁿ right \angle)
- $\angle ABC \cong \angle EDC$ (AA subs)

3) **Given:** $FJ \cong LH$, $FG \cong LK$,

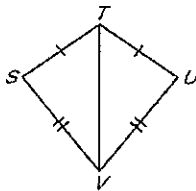
$\angle FJG$ and $\angle LHK$ are right angles

Prove $\angle FGJ \cong \angle LKH$

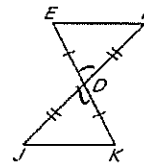


- $FJ \cong LH$, $FG \cong LG$ (given)
- $\angle FJG$ and $\angle LHK$ are right angles
- $\triangle FJG \cong \triangle LHK$ (HL)
- $\angle FGJ \cong \angle LKH$ (CPCTC)

4)



5)



a) Name the two congruent triangles. $\triangle STV \cong \triangle TVU$

b) Name the theorem that proves this. SSS

c) Name at least one congruency according to CPCTC not already shown in the figure.

$\angle TSV \cong \angle TVU$

a) Name the two congruent triangles. $\triangle EFO \cong \triangle KJO$

b) Name the theorem that proves this. SAS

c) Name at least one congruency according to CPCTC not already shown in the figure.

$\overline{EF} \cong \overline{JK}$

6) What does CPCTC stand for?

Corresponding parts of congruent triangles are congruent

PUSH IT TO THE LIMIT.